Utilization, Cost, and Prescription Trends of Antipsychotics Prescribed by Dermatologists for Medicare Patients

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PRACTICE **POINTS**

- Dermatologists are frontline medical providers who can be useful in screening for primary psychiatric disorders in patients with dermatologic manifestations.
- Second-generation antipsychotics are effective for treating many psychiatric disorders.

To the Editor:

Patients with primary psychiatric disorders with dermatologic manifestations often seek treatment from dermatologists instead of psychiatrists.[1] For example, patients with delusions of parasitosis may lack insight into the underlying etiology of their disease and instead fixate on establishing an organic cause for their symptoms. As a result, it is an increasingly common practice for dermatologists to diagnose and treat psychiatric conditions.[1] The goal of this study was to evaluate trends for the top 5 antipsychotics most frequently prescribed by dermatologists in the Medicare Part D database.

In this retrospective analysis, we consulted the Medicare Provider Utilization and Payment Data for January 2013 through December 2020, which is provided to the public by the Centers for Medicare & Medicaid Services.[2] Only prescribing data from dermatologists were included in this study by using the built-in filter on the website to select "dermatology" as the prescriber type. All other provider types were excluded. We chose the top 5 most prescribed antipsychotics based on the number of supply days reported. Supply days—defined by Medicare as the number of days' worth of medication that is prescribed—were used as a metric for utilization; therefore, each drug's total supply days prescribed by dermatologists were calculated using this combined filter of drug name and total supply days using the database.

To analyze utilization over time, the annual average growth rate (AAGR) was calculated by determining the growth rate in total supply days annually from 2013 to 2020 and then averaging those rates to determine the overall AAGR. For greater clinical relevance, we calculated the average growth in supply days for the entire

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Cutis. 2024 October;114(4):E2-E4. doi: 10.12788/cutis.1116

study period by determining the difference in the number of supply days for each year and then averaging these values. This was done to consider overall trends across dermatology rather than individual dermatologist prescribing patterns.

Based on our analysis, the antipsychotics most frequently prescribed by dermatologists for Medicare patients from January 2013 to December 2020 were pimozide, quetiapine, risperidone, olanzapine, and aripiprazole. The AAGR for each drug was 2.35%, 4.89%, 5.59%, 9.48%, and 20.72%, respectively, which is consistent with increased utilization over the study period for all 5 drugs (Table 1). The change in cost per supply day for the same period was 1.3%, −66.1%, −60.2%, −81.7%, and −84.3%, respectively. The net difference in cost per supply day over this entire period was $0.02, −$2.79, −$1.06, −$5.37, and −$21.22, respectively (Table 2).

There were several limitations to our study. Our analysis was limited to the Medicare population. Uninsured patients and those with Medicare Advantage or private health insurance plans were not included. In the Medicare database, only prescribers who prescribed a medication 10 times or more were recorded; therefore, some prescribers were not captured.

Although there was an increase in the dermatologic use of all 5 drugs in this study, perhaps the most marked growth was exhibited by aripiprazole, which had an AAGR of 20.72% (Table 1). Affordability may have been a factor, as the most marked reduction in price per supply day was noted for aripiprazole during the study period. Pimozide, which traditionally has been the first-line therapy for delusions of parasitosis, is the only first-generation antipsychotic drug among the 5 most frequently prescribed antipsychotics.[3] Interestingly, pimozide

TABLE 1. Average Growth in Supply Days for the Top 5 Antipsychotics Prescribed by Dermatologists for Medicare Patients From 2013 to 2020

	Year								AAGR, %	Average growth in supply days,[a] d
Drug	2013	2014	2015	2016	2017	2018	2019	2020		
Pimozide	21,502	19,430	22,371	24,375	22,892	17,424	21,814	23,285	2.35	254.71
Quetiapine	13,949	19,310	17,975	21,092	18,368	18,325	15,170	17,556	4.89	515.29
Risperidone	10,727	16,487	14,227	19,688	15,590	11,799	11,956	12,502	5.59	253.57
Olanzapine	8497	14,825	15,488	14,654	9137	10,005	12,727	11,929	9.48	490.29
Aripiprazole	4366	5310	2676	5943	6111	6673	7223	9440	20.72	724.86

Abbreviation: AAGR, average annual growth rate.

[a]Average growth in supply days was calculated by taking the average of the values of supply-day change from the period 2013 to 2020 for each drug considered.

TABLE 2. Change in Cost Per Supply Day for the Top 5 Antipsychotics Prescribed by Dermatologists for Medicare Patients From 2013 to 2020

	Cost per supply day, $								Change in cost per supply day from 2013 to 2020, %	Net change in cost from 2013 to 2020, $
Drug	2013	2014	2015	2016	2017	2018	2019	2020		
Pimozide	2.35	2.96	3.13	2.40	2.24	2.17	2.19	2.33	1.3	0.02
Quetiapine	4.22	2.88	2.18	2.28	1.19	0.98	0.99	1.43	−66.1	2.79
Risperidone	1.76	3.11	2.15	1.15	0.88	1.69	0.58	0.70	−60.2	1.06
Olanzapine	6.57	2.96	1.29	0.81	0.89	1.67	1.18	1.20	−81.7	5.37
Aripiprazole	25.17	31.11	30.11	16.54	5.80	3.65	2.91	3.95	−84.3	21.22

had the lowest AAGR compared with the 4 second-generation antipsychotics. This finding also is corroborated by the average growth in supply days. While pimozide is a first-generation antipsychotic and had the lowest AAGR, pimozide still was the most prescribed antipsychotic in this study. Considering the average growth in Medicare beneficiaries during the study period was 2.70% per year,[2] the AAGR of the 4 other drugs excluding pimozide shows that this growth was larger than what can be attributed to an increase in population size.

The most common conditions for which dermatologists prescribe antipsychotics are primary delusional infestation disorders as well as a range of self-inflicted dermatologic manifestations of dermatitis artefacta.[4] Particularly, dermatologist-prescribed antipsychotics are first-line for these conditions in which perception of a persistent disease state is present.[4] Importantly, dermatologists must differentiate between other dermatology-related psychiatric conditions such as trichotillomania and body dysmorphic disorder, which tend to respond better to selective serotonin reuptake inhibitors.[4] Our data suggest that dermatologists are increasing their utilization of second-generation antipsychotics at a higher rate than first-generation antipsychotics, likely due to the lower risk of extrapyramidal symptoms. Patients are more willing to initiate a trial of psychiatric medication when it is prescribed by a dermatologist vs a psychiatrist due to lack of perceived stigma, which can lead to greater treatment compliance rates.[5] As mentioned previously, as part of the differential, dermatologists also can effectively prescribe medications such as selective serotonin reuptake inhibitors for symptoms including anxiety, trichotillomania, body dysmorphic disorder, or secondary psychiatric disorders as a result of the burden of skin disease.[5]

In many cases, a dermatologist may be the first and only specialist to evaluate patients with conditions that overlap within the jurisdiction of dermatology and psychiatry. It is imperative that dermatologists feel comfortable treating this vulnerable patient population. As demonstrated by Medicare prescription data, the increasing utilization of antipsychotics in our specialty demands that dermatologists possess an adequate working knowledge of psychopharmacology, which may be accomplished during residency training through several directives, including focused didactic sessions, elective rotations in psychiatry, increased exposure to psychocutaneous lectures at national conferences, and finally through the establishment of joint dermatology-psychiatry clinics with interdepartmental collaboration.

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